



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

NOTES.

I.

Historical Data concerning the Discovery of the Law of Valence.

AT page 89 of the Journal, reference was made to an editorial notice in *Nature* (March 14, 1875.) The date should have been February 14, and the article is of too great historical interest in connection with the Chemico-Algebraical Theory to be exposed to the chances of being overlooked. It reads as follows:

“In his interesting communication on the analogy between chemistry and algebra in our last number, Professor Sylvester attributes the conception of *valence* or *atomicity* to Kekulé. No doubt the theory in its present developed form owes much both to Kekulé and Cannizaro; indeed, until the latter chemist had placed the atomic weights of the metallic elements upon a consistent basis, the satisfactory development of the doctrine was impossible. The first conception of the theory, however, belongs to Frankland, who first announced it in his paper on Organo-metallic Bodies, read before the Royal Society on June 17th, 1852. After referring to the habits of combination of nitrogen, phosphorus, antimony and arsenic, he says: ‘it is sufficiently evident, from the examples just given, that such a tendency or law prevails, and that, no matter what the character of the uniting atoms may be, *the combining power of the attracting element*, if I may be allowed the term, *is always satisfied by the same number of these atoms*.’ He then proceeds to illustrate this law by the organo-compounds of arsenic, zinc, antimony, tin, and mercury. In conjunction with Kolbe, Frankland was also the first to apply this law to the organic compounds of carbon; their paper on this subject, bearing date December, 1856, having appeared in Liebig’s *Annalen* in March, 1857, whilst Kekulé’s first memoir, in which he mentions the tetrad functions of carbon, is dated August 15th, 1857, and was not published until November 30th in the same year. Kekulé’s celebrated paper, however, in which this application of the theory of atomicity to carbon was developed, is dated March 16th, 1858, and was published on May 19th, 1858. On the other hand, the “chemi-cographs” or graphic formulæ, which Professor Sylvester has so successfully applied to algebra, were the invention of Crum Brown, although Frankland has used them to a much greater extent than any other chemist.”